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EXAMINER				
MORRISON, THOMAS A				
ART UNIT		PAPER NUMBER		
3653				

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/694,600

Applicant(s)

OSTREICHER ET AL.

Examiner

Thomas A. Morrison

Art Unit

3653

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/27/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "22" and "23" have both been used to designate the same part (i.e., either the blowing device(s) 22 or the sensing element(s) 23) as shown in Fig. 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The abstract of the disclosure is objected to because it contains various grammatical errors. In particular, the abstract is written as one long confusing sentence. It is unclear what function each of the elements (e.g., the first suction chamber) performs. Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: (1) "provide" on page 4, line 2 should be -- provided --; (2) "headss" on page 7, lines 5 and 12 should be -- heads --; (3) "blowing devices 22" should either be -- blowing device 22 -

- or it should be indicated that only one blowing device 22 is shown; (4) "sensing elements 23" should either be -- sensing element 23 -- or it should be indicated that only one sensing element 23 is shown; (5) two different reference numerals (38 and 41) are used to indicate the cross-flow channel on page 8, lines 9-10; and (6) the same reference numeral (41) is used to identify the openings 41 and the cross-flow channel 38; 41 on page 8, lines 9-10.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 12 and their dependent claims 2-11 and 13-22, these claims require a second suction chamber coaxially surrounding a first section chamber for holding a lifting cylinder and for reducing a lowering speed of the lifting cylinder. It is unclear as to the relationship between the lifting cylinder and the second cylinder. In other words, there is insufficient structure recited in the claims to understand how the second suction chamber reduces the lowering speed of the lifting cylinder.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7, 10, 12-18 and 21, as best understood, are rejected under 35

U.S.C. 102(b) as being anticipated by Junger. The Junger patent meets all of the limitations set forth in claims 1-7, 10, 12-18 and 21.

Regarding independent claim 1, Figs. 1-10 show a spring-action suction head (1), comprising:

a first suction chamber (including 15, 6 and the inside of 3) having a volume for lifting the spring-action suction head (1) and the volume being varied by applying a vacuum (column 5, lines 35-40); and

a second suction chamber (10 or 28) coaxially surrounding the first suction chamber (surrounding the inside of 3) for holding the spring-action suction head (1) and for reducing a lowering speed of the spring-action suction head (1). In particular, the second suction chamber (10 or 28) stops the spring-action suction head (1) from being lowered when a vacuum is applied to the second suction chamber. In other words, the second suction chamber (10 or 28) completely reduces the lowering speed of the spring-action suction head to zero. See, e.g., column 6, lines 3-27.

Turning now to independent claim 12, Figs. 1-10 show a spring-action suction head (1), comprising:

a lifting cylinder (5); and

a housing (including 4, 34 and optionally 18) supporting the lifting cylinder (5) (see Figs 1 and 5), the housing (including 4, 34 and optionally 18) defining a first suction

chamber (including 15, 6 and the inside of 3) having a volume for lifting the lifting cylinder (5) and the volume being varied by applying a vacuum (column 5, lines 35-40) and a second suction chamber (10 or 28) coaxially surrounding the first suction chamber (surrounding the inside of 3) for holding the lifting cylinder (see Fig. 5) and for reducing a lowering speed of the lifting cylinder (5). As mentioned above, the second suction chamber (10 or 28) completely reduces the lowering speed of the spring-action suction head to zero by holding it in the lifted position. See column 6, lines 3-27.

Regarding the dependent claims 2 and 13, column 6, lines 6-13 disclose a controlled vacuum supply fluidically communicating with the second suction chamber (10).

Regarding the dependent claims 3 and 14, Figs. 6 and 7 show an adjustable cross-flow channel (including 12 and possibly the opening in 18) and the second suction chamber (10) is operatively connected to the adjustable cross-flow channel (i.e., 10 is connected to 12 and the opening in 18). The cross-flow channel is adjustable in that the length of this channel can be changed by using either gasket 18 together with 12 or only using 12 and installing gasket 27 on the lifting cylinder 5. Regarding the limitation in claim 14, Figs. 1 and 7, respectively, show that the gasket 18 can either form part of the housing or the gasket 18 can be removed from the housing to adjust the length of the cross-flow channel (i.e., remove the opening in 18).

Regarding the dependent claims 4 and 15, Figs. 1 and 7 show that the adjustable cross-flow channel (including 12 and possibly the opening in 18) has an adjustable length depending upon whether gasket (18) or gasket (27) is installed.

Regarding the dependent claims 5 and 16, Figs. 1-10 show a lifting cylinder (5) delimiting both the first suction chamber (including 15, 6 and the inside of 3) and the second suction chamber (10 or 28).

Regarding the dependent claims 6 and 17, the lifting cylinder (5) has at least one non-return valve (27). In particular, the gasket 27 provides a seal between the second suction chamber (10) and the atmosphere when the lifting cylinder (5) is in a lifted position. This seal keeps air from the atmosphere from returning into the second vacuum chamber (10). Thus, it can be considered to be a non-return valve.

Regarding the dependent claims 7 and 18, the non-return valve (27) is disposed in a through opening between the second suction chamber (10) and the atmosphere, when the lifting cylinder (5) is located in the lifted position.

Regarding claims 10 and 21, as best understood, Figs. 1 and 5 show that the adjustable cross-flow channel (including 12 and the opening in 18) has a bore (the opening in 18) formed therein and disposed axially parallel to the lifting cylinder (5); and the second suction chamber (10) has at least one opening formed therein connecting the second suction chamber (10) to the bore (the opening in 18) of the cross-flow channel (including 12 and the opening in 18).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junger. Junger discloses a suction head system in which suction air control is provided with the aid of rotary valves. See column 8, lines 10-14. Junger also discloses that the first vacuum chamber (including 15, 6 and the inside of 3) is connected to one vacuum source via a suction connector 3 and the second vacuum chamber (10 or 28) is connected to a different vacuum source via a suction connector 11. See Figs. 1 and 5-8. It would have been obvious to one of ordinary skill in the art at the time of the invention, to connect one rotary valve to the first vacuum chamber and connect a different rotary valve to the second vacuum chamber, in order to provide suction air control in the first and second vacuum chambers, as taught by Junger.

**Conclusion**

7. The fact that the examiner has not applied prior art rejections to all of the claims should not be construed to indicate that some claims contain allowable subject matter, particularly in view of the 35 U.S.C. 112, second paragraph, rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is 703-305-0554. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.




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